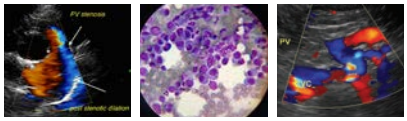
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
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DATE

6/15/23

PATIENT

Bertie Smyth

SPECIES

Canine

BREED

Maltese

SEX

Spayed Female

AGE

11/24/04

WEIGHT

14.9 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Timonium AH

REFERRING VET

Dr. Gernhart

INVOICE

43228

PRESENTING CLINICAL SIGNS

PU/PD. Low dose dex supp was diagnostic for Hyperadrenocorticism but no discriminative from pituitary vs Adrenal looking for signs of adrenal disease.

Current Medications: None at this time.
Lab Results: Elevated ALKP/ ALT, Dilute urine PU/PD
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Andi Parkinson, BS, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia or infarcts observed. The left kidney measures 4.32 cm. The right kidney measures 4.71 cm. Punctate non-obstructive nephrolithiasis is noted bilaterally.

Adrenal Glands

The right adrenal gland is small (flattened contour). Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The right adrenal gland measures 1.79 cm long x 0.62 cm at the cranial pole and 0.56 cm at the caudal pole.

The left adrenal gland is enlarged with mild heterogenous parenchymal changes. Swollen capsular expansion is noted without evident capsular escape or vascular invasion. The left adrenal gland measures 2.42 cm long x 0.87 cm at the cranial pole and 1.34 cm at the caudal pole.

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- A left adrenal mass with a mildly flat right adrenal gland is most consistent with adrenal dependent hyperadrenocorticism, given the reported positive low-dose Dexamethasone suppression test. Pituitary dependent adrenal hyperplasia is possible but considered less likely.

- Heterogenous Liver – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.

- Mild gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

SECONDARY FINDINGS

- Age related kidney changes with non-obstructive punctate nephrolithiasis bilaterally

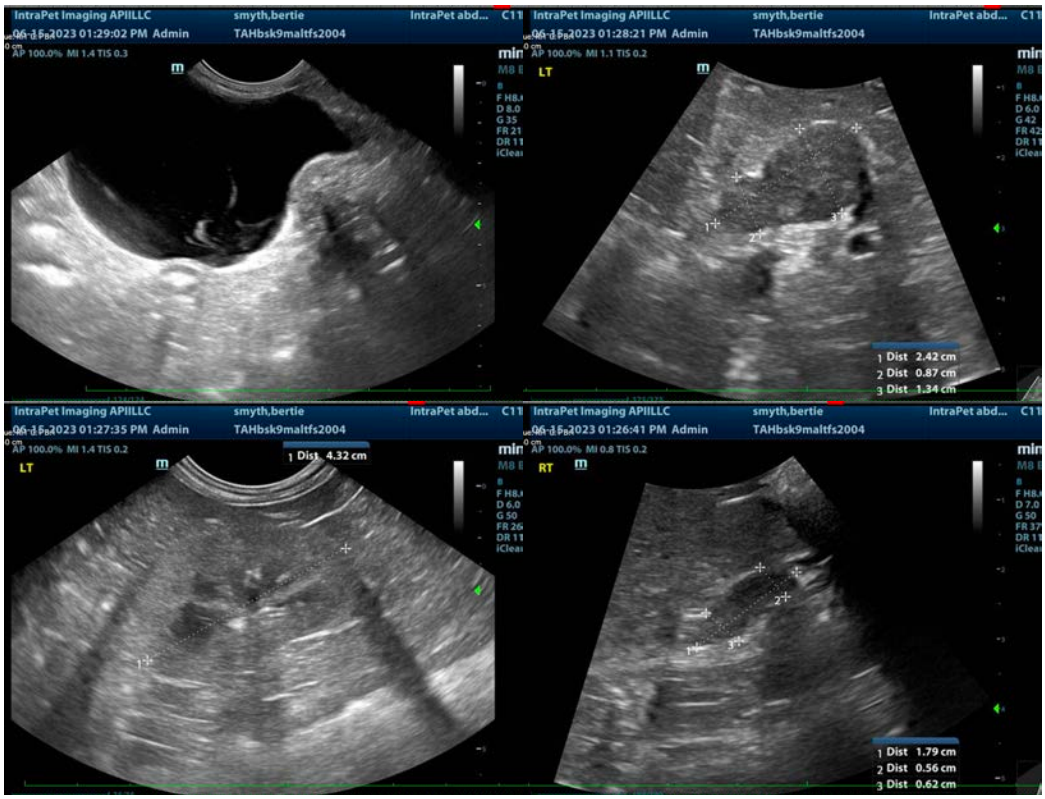
- Urinary bladder debris

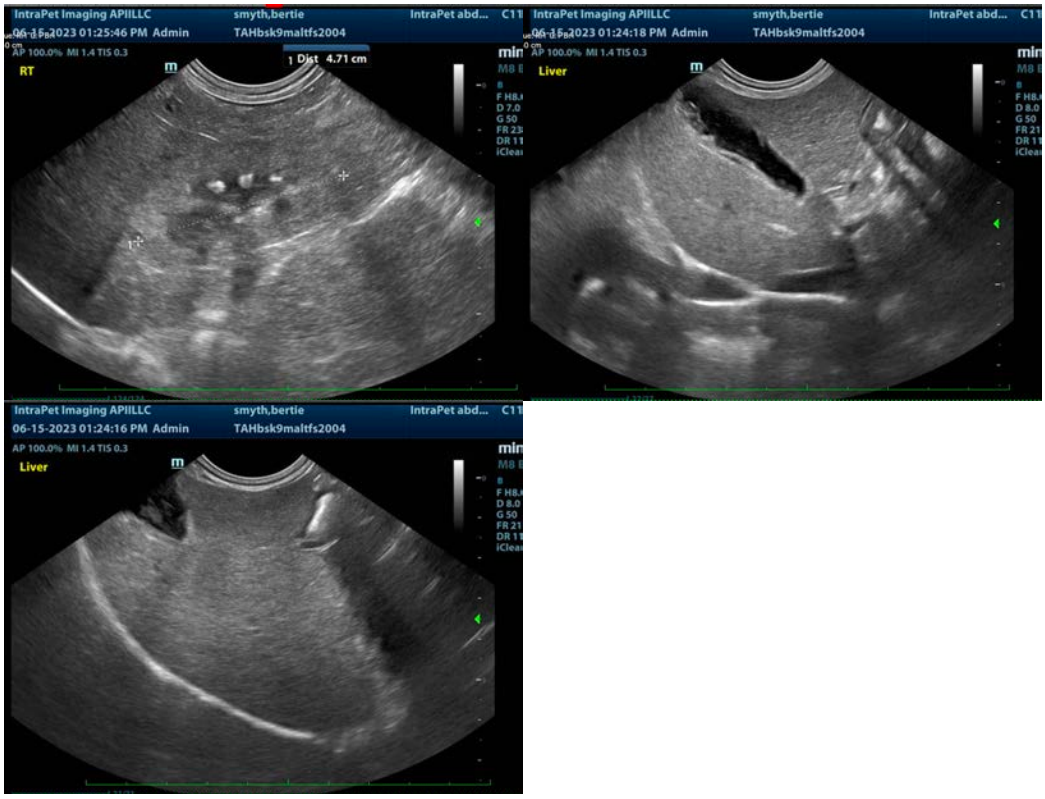
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The appearance of the adrenal glands are most consistent with adrenal dependent hyperadrenocorticism, given this patient's reportedly positive low-dose Dexamethasone suppression test. Having said that, the right adrenal gland isn't quite as flat as is typically expected. Therefore, pituitary dependent disease cannot be definitively ruled out. If treatment is going to be pursued via a left adrenalectomy, further confirmation of adrenal dependent disease should be considered via an alternative method such as an endogenous ACTH level. If however surgery is not going to be pursued, then medical management is similar for either condition.

Regardless, if not recently evaluated, a urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

A blood pressure is also recommended.





The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

Beth Johnson, DVM, DACVIM
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